IN THE CLAIMS:

Cancel claims 1-36.

37. (Amended) A method of chemical mechanical planarization of a substrate comprising a copper-containing structure, a dielectric, and a barrier layer disposed between the copper-containing structure and the dielectric, the barrier layer comprising tantalum, tantalum nitride, or both, comprising the steps of:

a) providing a substrate comprising a copper-containing structure, a dielectric, and a barrier layer disposed between the copper-containing structure and the dielectric, the barrier layer comprising tantalum, tantalum nitride, or both, wherein the substrate has been chemically mechanically polished with a phase one slurry to planarize the copper to about the level of the barrier/adhesion layer of Ta/TaN overlying a dielectric layer; ~~and,~~

b) providing a chemical mechanical planarization composition between the substrate and a polishing pad, the composition comprising ~~wherein said composition includes,~~ in aqueous solution, ~~at least one oxidizer~~ hydroxylamine nitrate, at least one nitrate which is not hydroxylamine nitrate, and at least one abrasive, wherein the chemical mechanical planarization composition is acidic said composition provided; and

c) planarizing said barrier/adhesion layer by ~~rotating a~~ moving the polishing pad ~~in contact with~~ relative to said barrier/adhesion layer while having said chemical mechanical planarization composition therebetween, said planarizing selectively planarizing the barrier layer.

38-41. (cancelled)

42. (new) The method of claim 37 wherein the at least one nitrate which is not hydroxylamine nitrate is ammonium nitrate.

43. (new) The method of claim 37 wherein the at least one nitrate which is not hydroxylamine nitrate is aluminum nitrate.

44. (new) The method of claim 37 wherein the at least one nitrate which is not hydroxylamine nitrate is nitric acid.

45. (new) The method of claim 44 wherein the chemical mechanical planarization composition further comprises benzotriazole.

46. (new) The method of claim 37 wherein the chemical mechanical planarization composition further comprises benzotriazole.

47. (new) The method of claim 37 wherein the chemical mechanical planarization composition has a pH between about 2.1 and about 3.2.

48. (new) The method of claim 37 wherein the abrasive comprises colloidal silica.

49. (new) The method of claim 48 wherein the colloidal silica has a particle size range of between 20 and 150 nanometers.

50. (New) A method of chemical mechanical planarization of a substrate comprising a copper-containing structure, a dielectric, and a barrier layer disposed between the copper-containing structure and the dielectric, the barrier layer comprising tantalum, tantalum nitride, or both, comprising the steps of:

a) providing a substrate comprising a copper-containing structure, a dielectric, and a barrier layer disposed between the copper-containing structure and the dielectric, the barrier layer comprising tantalum, tantalum nitride, or both, wherein the substrate has been chemically mechanically polished with a phase one slurry to planarize the copper;

b) providing a chemical mechanical planarization composition between the substrate and a polishing pad, the composition comprising in aqueous solution, hydrazine, at least one nitrate, and at least one abrasive; and,

c) planarizing said barrier/adhesion layer by moving the polishing pad relative to said barrier/adhesion layer while having said chemical mechanical planarization composition therebetween, said planarizing selectively planarizing the barrier layer.

51. (new) The method of claim 50 wherein the at least one nitrate is ammonium nitrate.

52. (new) The method of claim 50 wherein the at least one nitrate aluminum nitrate.

53. (new) The method of claim 50 wherein the at least one nitrate is nitric acid.

54. (new) The method of claim 50 wherein the chemical mechanical planarization composition further comprises benzotriazole.

55. (new) The method of claim 51 wherein the chemical mechanical planarization composition further comprises benzotriazole.

56. (new) The method of claim 50 wherein the chemical mechanical planarization composition has a pH between about 5.7 and about 6.5.

57. (new) The method of claim 50 wherein the abrasive comprises colloidal silica.

58. (new) The method of claim 57 wherein the colloidal silica has a particle size range of between 20 and 150 nanometers.

59. (new) The method of claim 50 wherein the phase one slurry to planarize the copper comprises hydrogen peroxide.

60. (New) A method of chemical mechanical planarization of a substrate comprising a copper-containing structure, a dielectric, and a barrier layer disposed between the copper-containing structure and the dielectric, the barrier layer comprising tantalum, tantalum nitride, or both, comprising the steps of:

a) providing a substrate comprising a copper-containing structure, a dielectric, and a barrier layer disposed between the copper-containing structure and the dielectric, the barrier layer comprising tantalum, tantalum nitride, or both, wherein the substrate has been chemically mechanically polished with a phase one slurry to planarize the copper to about the level of the barrier/adhesion layer of Ta/TaN overlying a dielectric layer;

b) providing a chemical mechanical planarization composition between the substrate and a polishing pad, said composition comprising in aqueous solution ammonium nitrate, aluminum nitrate, or mixture thereof, and at least one abrasive; and,

c) planarizing said barrier/adhesion layer by moving the polishing pad relative to said barrier/adhesion layer while having said chemical mechanical planarization composition therebetween.

61. (new) The method of claim 60 wherein the composition comprises ammonium nitrate.

62. (new) The method of claim 60 wherein the composition comprises aluminum nitrate.

63. (new) The method of claim 61 wherein the chemical mechanical planarization composition further comprises benzotriazole.

64. (new) The method of claim 62 wherein the chemical mechanical planarization composition further comprises benzotriazole.

65. (new) The method of claim 60 wherein the chemical mechanical planarization composition has a pH between about 5.1 and about 5.5.

66. (new) The method of claim 60 wherein the abrasive comprises colloidal silica.

67. (new) The method of claim 66 wherein the colloidal silica has a particle size range of between 20 and 150 nanometers.